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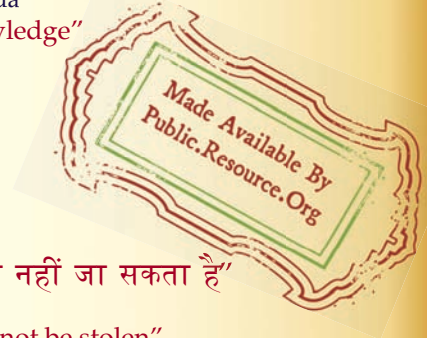
IS 3278 (1966): Dimensions for detachable coaming covers and wire mesh grids for steel cowl ventilators [TED 17: Shipbuilding]



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Indian Standard

DIMENSIONS FOR
DETACHABLE COAMING COVERS
AND WIRE MESH GRIDS FOR STEEL
COWL VENTILATORS

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DIMENSIONS FOR DETACHABLE COAMING COVERS AND WIRE MESH GRIDS FOR STEEL COWL VENTILATORS

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Indian Standard

DIMENSIONS FOR DETACHABLE COAMING COVERS AND WIRE MESH GRIDS FOR STEEL COWL VENTILATORS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 25 February 1966, after the draft finalized by the Marine Engineering and Shipbuilding Sectional Committee had been approved by the Mechanical Engineering Division Council.

0.2 This standard is one of a series of Indian Standards on cowl ventilators. Other standards in the series are:

IS : 3271-1966 General requirements for steel cowl ventilators with detachable components

IS : 3272-1966 Dimensions for oval-head steel cowl ventilators

IS : 3273-1966 Dimensions for circular-head steel cowl ventilators

IS : 3275-1966 Dimensions for accessories for steel cowl ventilators

IS : 3276-1966 Dimensions for mechanical turning arrangements for steel cowl ventilators

*IS : 3277- Dimensions for coamings for steel cowl ventilators

0.3 In the preparation of this standard, assistance has been derived from the following standards issued by Association Francaise de Normalisation:

NF J 46-124 : 1951 Manches a air—tape et panneau. (Ventilators—protection grills)

NF J 46-128 : 1951 Manches a air—piton d'enlèvement et grillages de protection. (Ventilators—lifting eye plates and protection grills)

0.4 'Indian Standard general requirements for steel cowl ventilators with detachable components' (IS : 3271-1966) and 'Indian Standard dimensions for coamings, for steel cowl ventilators' (IS : 3277*) are necessary adjuncts to this standard.

*Under preparation.

0.5 In a rough seaway, it is often necessary to remove the intermediate trunking of the ventilator with the head, and cover the coaming in a suitable manner.

0.6 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1 SCOPE

1.1 This standard covers the requirements for portable covers used to cover ventilator coamings and the wire mesh grid to be fitted to the head of the ventilator for sea-going vessels.

2. TERMINOLOGY

2.0 For the purpose of this standard, the following definition shall apply.

2.1 Wire Mesh Grid — Wire mesh grid is the one fitted to the mouth of the ventilator so as to prevent fire and also to act as anti-rat device.

3. DESCRIPTION

3.1 Portable Covers — This standard covers two types of portable covers for coaming, namely, Type A, a non-watertight cover, and Type B, a watertight cover.

3.1.1 Non-Watertight Cover (Type A) — The non-watertight cover is provided with one or two handles depending on the nominal size of the ventilator.

3.1.2 Watertight Cover (Type B) — The watertight covers are provided with a rubber ring and a central screw to hold the cover in place.

3.2 Wire Mesh Grid

3.2.1 The wire mesh grids are so shaped as to correspond to the head of the ventilator. They are placed over a support ring and secured by a locking ring. Lugs are welded to the head of the ventilator to which the wire mesh grid assembly is fitted on by a set of screws.

4. REQUIREMENTS

4.1 For ventilators of nominal sizes up to and including 600 mm, coaming cover shall be provided with one hand grip.

*Rules for rounding off numerical values (*revised*).

4.2 For ventilators of nominal sizes 700 mm and above, two hand grips shall be provided.

4.3 For ventilators of nominal sizes 500 mm and above, two cross braces shall be fitted as shown in Fig. 1.

4.4 For watertight coaming covers, the braces shall be provided with a clear hole for the passage of the tightening bolt.

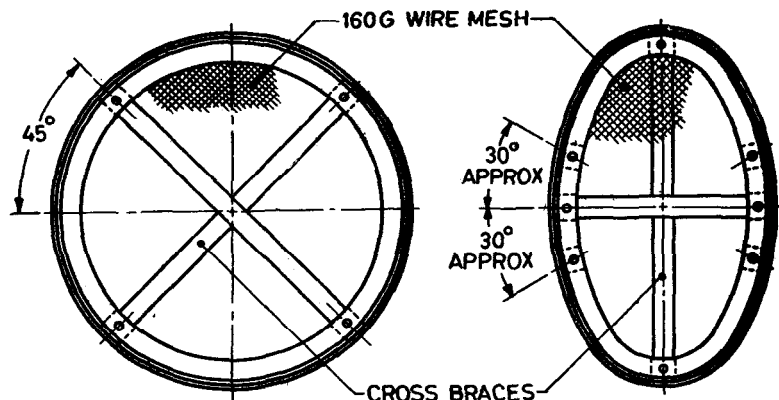


FIG. 1 CIRCULAR AND OVAL WIRE MESH GRIDS

4.5 The tightening bolt shall be provided with an eye on its upper end, to facilitate lifting of the coaming cover.

4.6 Coaming covers shall be galvanized in cases where the thickness of plate used for fabrication is less than 6 mm.

4.7 The lugs welded to the head of the ventilator to receive the wire mesh grid assembly shall be made of 8×30 mm mild steel flats.

4.7.1 The pitch of lugs shall not exceed 150 mm with a minimum of 3 lugs.

4.7.2 The wire mesh shall be of brass or steel conforming to IS: 1568-1960*.

5. DIMENSIONS

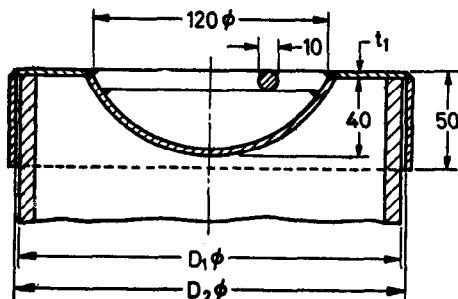
5.1 The shape and dimensions of Type A and Type B portable covers for coaming shall be as given in Table 1.

*Specification for wire gauze for general purposes.

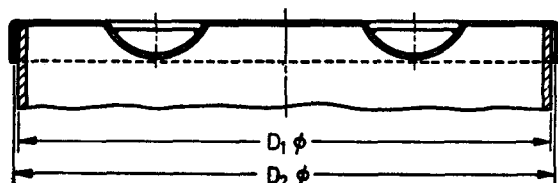
TABLE 1 DIMENSIONS FOR COAMING COVERS FOR STEEL COWL VENTILATORS

(Clause 5.1)

(All dimensions in millimetres)

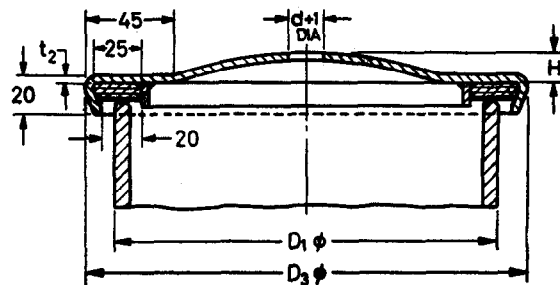


SINGLE HAND GRIP FOR SIZES UP TO 600

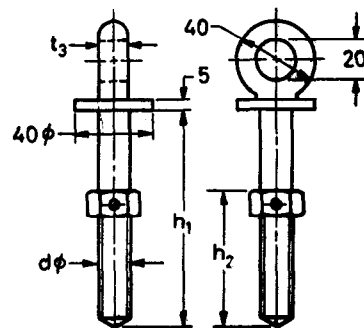


DOUBLE HAND GRIP FOR SIZES 700 AND ABOVE

TYPE A COAMING COVER



TYPE B COAMING COVER

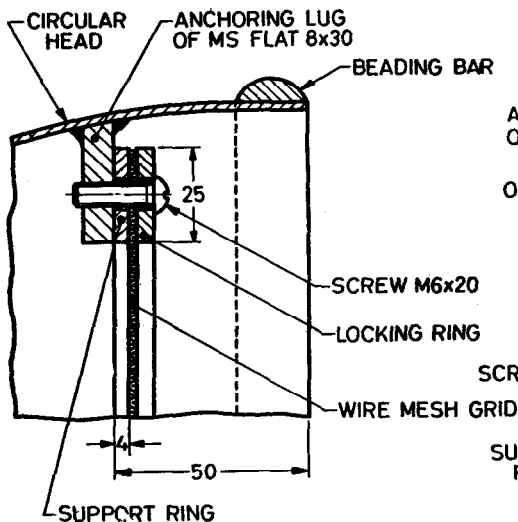


**DETAIL OF LOCKING SCREW FOR
TYPE B COAMING COVER**

FOR NOMINAL SIZE	TYPE A			TYPE B						
	D_1	D_2	t_1	D_3	t_2	H	d	h_1	h_2	t_3
150	146	149	3.15	176	4	15	M16	110	70	15
200	196	199	3.15	226	4	15	M16	110	70	15
250	246	250	3.15	276	4	20	M16	115	70	15
300	296	300	4.00	327	5	25	M16	120	70	15
350	335	339	4.00	366	5	30	M16	125	70	15
400	385	389	4.00	416	5	30	M18	135	80	18
450	435	439	4.00	465	5	35	M18	145	80	18
500	484	488	4.00	515	5	35	M18	145	80	18
550	534	538	4.00	564	5	40	M18	150	90	20
600	584	590	5.0	614	6	40	M20	150	90	20
700	681	689	5.0	711	6	40	M20	160	90	20
800	781	787	5.0	813	6	40	M20	160	90	20
900	881	887	5.0	913	6	40	M20	160	90	20

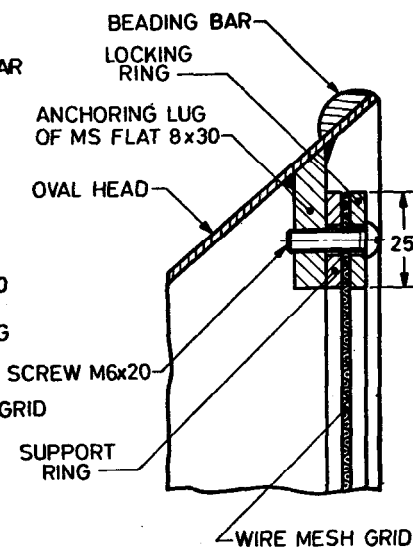
5.2 The shape and dimensions of circular and oval wire mesh grids shall be as shown in Fig. 1.

5.3 The method of attachment of the wire mesh assembly to the ventilator heads and the dimensions of locking ring shall be as shown in Fig. 2 and 3.



All dimensions in millimetres.

FIG. 2 METHOD OF FITTING WIRE MESH ASSEMBLY TO CIRCULAR OR OVAL HEAD



All dimensions in millimetres.

FIG. 3 METHOD OF FITTING WIRE MESH ASSEMBLY TO TYPE C OVAL HEAD

6. MATERIAL

6.1 The material for portable coaming covers shall be as given in IS : 3271-1966*.

* General requirements for steel cowl ventilators with detachable components.

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